



Proposed Code Change
State Form 41186R

RETURN TO:
INDIANA DEPARTMENT OF HOMELAND SECURITY
CODE SERVICES SECTION
302 W. Washington Street Room W246
Indianapolis, IN 46204

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INSTRUCTIONS:

Only TYPED copy accepted.

(KEY - ~~Dashed line through material to be deleted~~, underline material to be added)

Use second sheet for any material requiring more space.

Code Title		Edition
Indiana Administrative Code, One and Two Family Dwelling Code		2005
Section number and title		Page
675 IAC 14-4.3-139 Chapter 11; energy efficiency		91
Proponent	Title	
Bowden Quinn for the Hoosier Energy Code Coalition* (Please see list of member organizations at end of proposal.)	Conservation Program Coordinator, Sierra Club Hoosier Chapter	
Address		Phone
1915 W 18th Street, Suite D , Indianapolis, IN 46202		317-822-3750
PROPOSED CODE CHANGE (Check One)		
<input type="checkbox"/> Change to read as follows <input type="checkbox"/> Add to read as follows <input checked="" type="checkbox"/> Delete and substitute as follows <input type="checkbox"/> Delete without substitution		
Sec. 139. Delete the text of Chapter 11 in its entirety and substitute the following:		
<u>Section N1101; GENERAL</u>		
<u>N1101.1 Scope. This chapter sets forth energy-efficiency requirements for the design and construction of buildings regulated by this code.</u>		
<u>Exception: Provided that they are separated by building envelope assemblies from the remainder of the building, portions of the building that do not enclose conditioned space shall be exempt from the building envelope provisions but shall comply with the provisions for building mechanical and service water systems.</u>		
<u>N1101.2 Compliance. Compliance with this chapter shall be demonstrated by meeting the requirements of the 2009 International Energy Conservation Code.</u>		
REASON AND FISCAL IMPACT		
<p>This proposal increases energy efficiency and simplifies compliance with and enforcement of the energy code. It also follows through on Governor Daniels' commitment to revise the energy code in order to receive State Energy Program funds under the 2009 American Recovery and Reinvestment Act (Stimulus Bill).</p> <p>The proposal replaces Indiana Residential Code Chapter 11 (Energy Efficiency) with a reference to the 2009 International Energy Conservation Code (IECC). This simple change will keep Indiana on track with the national model energy code and will bring a number of energy-saving and cost-saving benefits to Indiana's citizens.</p> <p>This general approach has already been successfully implemented in several states. In fact, the Indiana Residential Code currently references the IECC for the performance path, so Indiana already adopts one of the IECC's compliance options by reference. See 675 IAC 14-4.3-139, Section N1106 Alternate Design. The proposal to replace Chapter 11 with a reference to the IECC will expand that reference to include all of the IECC's compliance options, which will reduce confusion, save energy, and improve consistency.</p> <p>Indiana Will Benefit from Adopting the 2009 IECC as the Single Energy Efficiency Code for the State.</p> <ul style="list-style-type: none">• The adoption of the 2009 IECC or equivalent was designated by Congress as a specific requirement for states to receive \$3.2 billion in State Energy Program funds through the American Recovery and		

Reinvestment Act (Stimulus Bill). Indiana's share is projected to be \$68,621,000. Governor Daniels has already committed to meeting this requirement in a letter to the Department of Energy.

<http://www.energy.gov/media/DanielsIndiana.pdf>

- The U.S. Department of Energy has recently determined that the 2009 IRC is not equivalent to the 2009 IECC in terms of energy efficiency. In order to meet Governor Daniels' commitment to meet the 2009 IECC or its equivalent, we recommend simply adopting the 2009 IECC. In the alternative, Indiana could adopt a substantially modified version of the 2009 IRC to reach equivalency. The Department of Energy's analysis is available at:

http://www.enrgecodes.gov/news/irc_iecc_atra.stm

- The 2009 *IECC* is the final product of a code development process that involved the nation's leading experts in energy efficiency, building design and product performance, state and local code officials, product manufacturers and homebuilders.
- By adopting the 2009 *IECC*, Indiana will stay on track with statewide energy efficiency goals and will guarantee homeowner benefits for many years. New construction is the most cost-effective time to install good insulation, quality windows and doors, and efficient heating and cooling equipment. Construction costs will be reduced through economies of scale, as suppliers and retailers may reduce inventories and streamline production to meet more consistent energy targets.
- The 2009 *IECC* will facilitate compliance and enforcement of the code, and will allow builders to take advantage of free Department of Energy trainings, free compliance software like *REScheck*, and other programs. These programs do not apply to the *IRC* or any state-created energy codes.
- DOE's Pacific Northwest National Laboratories undertook a study on Illinois (a state with similar climate characteristics to Indiana) based on the 2006 *IECC*. The study shows that increases in initial costs (if any) are rapidly paid back, and usually pay dividends over the lifetime of the home. Given the estimated energy efficiency improvements in the 2009 version of the *IECC*, we expect that there will be a significant increase in energy savings on top of the PNNL study. Well-built energy efficient homes will provide homeowners the benefits of lower energy bills, and will cause less of a burden on Indiana to meet growing energy demands.
- Implementing and enforcing the 2009 *IECC* will ensure that every buyer of a new home gets one that is sensibly efficient. A home built to the 2009 *IECC* will have an efficient duct system, a well-sealed thermal envelope, a programmable thermostat, and a properly-sized heating and cooling system. Builders using the prescriptive path will no longer be able to "trade-off" standard practice HVAC systems for a less-insulated thermal envelope.
- Customers are demanding energy efficient or "green" building, and are willing to pay more for these homes, even in a slumping housing market. Builders gain credibility by following the latest national energy standards.

The Indiana Residential Code Chapter 11 Should Simply Reference the IECC for its Energy Requirements.

The Indiana Residential Code is currently based on the International Residential Code (IRC), and we expect that the current update will largely follow the requirements of that code. However, we recommend that Chapter 11 (Energy Efficiency) be replaced with a reference to the national model energy code, the *IECC*. For a number of reasons, the *IECC* is the best available option for an energy efficient code.

- The 2009 *IECC* is a more energy efficient and more robust code than the 2009 *IRC*. The *IECC* contains two additional consumer protections that are not contained in the *IRC*:
 - Section 402.2.1 of the *IECC* ensures that homes have adequate ceiling insulation, particularly in smaller homes that are built as entry-level or low-income housing. The *IRC* does not have this trade-off cap.
 - Section 402.5 of the *IECC* ensures that every new home will have efficient low-e windows, even when trade-off options are used. This is a simple, but essential, part of modern building practice.

This requirement does not exist in the 2009 IRC.

- While the IRC includes only a simple prescriptive option, the IECC includes several flexible compliance options that are designed to maintain efficiency. Although the 2009 IRC incorporates, by reference, the performance option of the 2009 IECC, the compliance baselines for the two codes are different. This will cause confusion among builders and building officials.
- The IECC is the only code recognized in federal law and nationwide as the comprehensive model energy code for all residential and commercial buildings. More than two thirds of states have adopted the IECC as their mandatory statewide energy code.
- Under the federal Energy Policy Act of 1992, the US Department of Energy (DOE) is required to review each new version of the IECC and determine if it is an improvement in energy efficiency over previous versions. (IRC Chapter 11 does not undergo such a rigorous assessment by DOE, so it is not clear whether it would meet the same high standard for energy efficiency improvement.) States are also required by federal law to undertake a review of the state energy code and determine whether state energy efficiency requirements meet the stringency of the IECC every time the Department of Energy makes a determination on the updated IECC.
- The IECC also serves as the basis for federal tax credits for energy efficient homes, energy efficiency standards for federal buildings, and qualification for FHA mortgages. The IECC is also referenced in LEED and many other state and federal programs. As mentioned above, Congress designated the IECC as the threshold requirement for State Energy Program funds available under the Stimulus Bill. None of these programs even references the IRC.

For all these reasons, the IECC is the logical selection as the single energy efficiency standard for Indiana. The simplest way to adopt the IECC is to delete Chapter 11 of the Indiana Residential Code (675 IAC 14-4.3-139) in its entirety and replace it with a reference to the 2009 IECC.

*Members of the Hoosier Energy Code Coalition are: Citizens Action Coalition of Indiana, Midwest Energy Efficiency Alliance, Hoosier Environmental Council, Natural Resources Defense Council, Polyisocyanurate Insulation Manufacturers Association, Responsible Energy Codes Alliance, Sierra Club Hoosier Chapter

REVIEW RECOMMENDATION
Approve
Disapprove
Approve as amended
Further Study